

REMARKS

Claims 1-18 are pending in the present application of which claims 15-18 have been withdrawn pursuant to 35 USC 121. Accordingly claims 1-14 are currently active and under consideration.

Claims 1, 3, 7 and 8 have been amended. In particular, claim 1 has been amended to make clear that the step of exposing a masked magnetic layer to ions lowers the coercivity of the exposed magnetic layer. Applicant respectfully submits that the scope of this claim has not been changed by this amendment since the remaining text of this claim inherently recites that ion implantation results in a lower coercivity. For example, the claim recites that after ion implantation, the masked magnetic layer has a distribution of low coercivity regions which function as servo marks. Hence, this amendment merely makes more explicit that which was inherently described in the claim already. Additional support for this amendment can be found throughout the detailed specification including the figures. Claims 3, 7, and 8 were amended to be consistent with independent claim 1. Claim 3 was also amended to make clear that the coercivity was lowered by the recited amounts rather than going from one amount to another. According to the nature of these amendments, it is respectfully submitted that no new matter issues have been raised thereby. Entry of the amendment is respectfully solicited.

Rejection under 35 USC 103

Claims 1-6, 8-11 and 13-14 were rejected under 35 USC 103(a) as unpatentable over Han (US 6,383,574) in view of Andra (DD 271, 191). The rejection is traversed and it is

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respectively submitted that the claims in the application are patentable within the meaning of 35 USC 103(a).

Independent claim 1 is directed to a method of patterning a magnetic layer for the production of a magnetic recording medium. The method comprises exposing a masked magnetic layer to lower the coercivity of the exposed regions. This occurs without substantially affecting the topography of the magnetic layer. The step requires that a distribution of low coercivity regions are formed which function as servo marks capable of being sensed by a read/write head. Dependent claims 2-14 further define aspects of the method. For example, dependent claim 9 describes the location of a series of low coercivity regions on the magnetic medium.

In contrast, Han relates to the formation of a magnetoresistive element (MR). This element functions as the read/write head itself, rather than the magnetic media for storing data. Moreover, the structure of a magnetoresistive element in a read/write head is significantly different than a magnetic layer for a magnetic recording medium. For example, there are no servo marks in the magnetoresistive head or element, let alone a distribution of low coercivity regions which function as servo marks capable of being sensed by a read/write head as defined in independent claim 1.

Andra fails to cure the deficiencies of the primary reference. Andra relates to increasing, rather than lowering, the coercivity of an exposed magnetic layer. Andra achieves the higher coercivity by implanting metal ions to form alloys in the layer. These metal ions include gold, silver, lead, bismuth, or cadmium to form a composition with cobalt.

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It is highly unlikely that the formation of alloys on or within the surface of the magnetic layer would not affect its topography. This process would likely not result in the advantages, as described in independent claim 1.

In the office action, the Examiner asserted that Andra discloses the formation of low coercivity regions. Applicant takes issue with this assertion. As described above, Applicant reads Andra as disclosing the opposite. Hence, it is Applicant's position that one of ordinary skill in the art reading the combination of Han and Andra would not arrive at the claimed subject matter. Indeed, one of ordinary skill in the art combining Han and Andra would arrive at the opposite result, assuming that one of ordinary skill in the art would even consider using Han for forming servo information in magnetic media, which it does not disclose. Accordingly, reconsideration and withdrawal of the rejection predicated on Han and Andra are respectfully solicited.

Claim 7 and 12 were rejected under 35 USC 103 as being unpatentable over Han in view of Andra and in view of Edmonson (US 5,232,566) or Bestler (US 2001/0033453). The rejections are traversed and it is respectfully submitted that claims 7 and 12 are patentable within the meaning of 35 USC 103(a).

As discussed above, Han and Andra combined do not arrive at independent claim 1. As also noted above, Han does not relate to the formation of servo marks in a magnetic layer for magnetic recording medium. Applicant respectfully submits that there is no basis in the record to support the motivation required to modify Han which relates to a magnetoresister element, precisely the type of element that is used to read the magnetic medium being formed.

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The secondary references do not cure the deficiency of Han and Andra. As noted above, Andra teaches a method with the opposite results. The remaining secondary references do not cure these defects. In particular, the mere fact that Edmondson discloses that a dopant gas can be accompanied by argon is not a disclosure that argon ions themselves are forming low coercivity regions in magnetic media. The combination of Edmondson and Andra are at complete opposites. Andra discloses increasing coercivity regions by forming alloys. Coercivity regions are not increased, and alloys are not formed with the use of argon ions.

Accordingly, reconsideration and withdrawal of the rejections of claims 7 and 12 predicated on the cited references are respectfully solicited.

Based on the foregoing, applicant respectfully submits that the application is in condition for allowance. Favorable consideration and allowance of the application are respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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